

We Claim:

1. A method for monitoring the operational condition of a motor vehicle comprising: instantly and continuously defining and monitoring an object associated with the operational condition of a motor vehicle.

2. The method of claim 1 further comprising: continuously scanning and tracking of the contour or silhouette of the object located in the vehicle and involved in the operation of said motor vehicle.

3. The method of claim 1 further comprising: real time monitoring of an operator of a motor vehicle by directly scanning and monitoring the eyes or pupils, face and upper torso of the operator of the motor vehicle and assessing any change of said eyes or pupils, face and upper torso to prevent a breakdown of the operational condition of a motor vehicle.

4. The method of claim 1 further comprising: employing an intelligent object tracking device, capable of real time silhouette and eye pupil scanning, monitoring, tracking and real time computer-based image processing.

5. A system for monitoring the operational condition of a motor vehicle, comprising:

a contour definition device mounted in a vehicle configured to generate a silhouette of the face/head of the operator of a motor vehicle;

a pupil reflex determination device mounted in a vehicle configured to locate the presence of the pupils in a defined zone overlying the outline of the face/head of the operator of a motor vehicle;

a device capable of real-time monitoring position of the outline of the face/head of the operator of a motor vehicle while the operator is seated in the operator seat with the engine motor running;

a device capable of real-time monitoring of the position of the pupils of the operator of a motor vehicle while the operator is seated in the operator seat with the engine motor running;

a device capable of real-time tracking of the position of the face/head of the operator of a motor vehicle while the operator is seated in the operator seat with the engine motor running; and

a device capable of real-time tracking of the position of the pupils of the operator of a motor vehicle while the operator is seated in the operator seat with the engine motor running.

6. The system of claim 5, wherein the motor vehicle comprises: a motor vehicle, a truck, a bus, a tractor, a crane, a 2- or 3-wheel conveyance, an airborne motorized transport, or a motorized water craft.

7. The system of claim 5, wherein the operational condition monitored is the presence of the operator in the operator seat.

8. The system of claim 5, wherein the condition monitored is whether the motor vehicle engine is running.

9. The system of claim 5, wherein the scanning beam comprises:

an infrared beam;

a radio frequency beam; and

an ultrasound beam.

10. The system of claim 5, wherein the silhouette is defined as contours outlining an operator.

11. The system according to claim 5, wherein the definition of silhouette comprises the contour or outline of the face/head.

12. The system of claim 5, wherein the silhouette is stored in memory.

13. The system of claim 5, wherein the silhouette is tracked for the motion.

14. The system of claim 5, wherein the silhouette is tracked for any change in its contours.

15. The method according to claim 5, wherein the change of the outline comprises:

any change in shape of the silhouette while tracked within a defined zone;

any change in position of the silhouette (i.e. lateral, vertical, torsional or oblique) within a defined zone.

16. The method of claim 5, wherein the defined zone comprises:

an area defined vertically, horizontally and axially within which an operator can safely operate the motor vehicle.

17. The system of claim 5, wherein the pupils are detected within the silhouette.

18. The system of claim 5, wherein the pupils detected within the silhouette are stored in memory.

19. The system of claim 5, wherein the pupils detected within the silhouette are tracked for the motion.

20. The system of claim 5, wherein the pupils detected within the silhouette are tracked for any change in size, shape and definition.

21. The system of claim 20, wherein the change of the size, shape and definition comprises:

any change in size of the pupils;

any change in the shape of the pupils; and

any change in position of the pupils, i.e. lateral, vertical, torsional or oblique.